

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Jiro Nagaoka et al.

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Serial No.: 09/763,523

Examiner :

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Art Unit : 2876

For : CONTACTLESS IC MEDIA AND SYSTEM APPLYING THE SAME

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INFORMATION DISCLOSURE STATEMENT

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Dear Sir:

In accordance with the requirements of 37 CFR 1.97 and 1.98, Applicants hereby submit the documents listed hereinbelow, copies enclosed, which were cited in the International Search Report.

- (1) Japanese Laid-Open No. 05-083866, dated November 12, 1993. This document discloses a non-contact signal which is used and it is the writing of information, such as identification information of a discriminated body, or management information of a managed body. While being the tag which has the function in which the read-out is possible and having the electronic circuitry by which the functional part writing and for read-out of the above-mentioned information was mounted in the functional-part row for transmission of the

above-mentioned non-contact signal, the electronic circuitry is 50 (kgcm/cm) in the Izod shock strength ID tag characterized by being covered with the above resin.

- (2) Japanese Laid-Open No. 05-030874, dated April 23, 1993.

This document discloses the flexible IC tag which mounts a non-contact signal-transmission device and electronic parts in the printed circuit board of the shape of a flexible tape of the quality of the material, and is characterized by fabricating a piece of Velcro to the anchoring side to goods by the softening agent which is the above-mentioned mould material at one in IC tag which comes to carry out the mould of this mounting printed circuit board by the softening agent.

- (3) U.S. Patent No. 4,900,386 entitled METHOD OF PRODUCING LABELS EACH HAVING A CIRCUIT FORMING AN OSCILLATING CIRCUIT, By Richter-Jørgensen, patented February 13, 1990. This patent discloses in order to produce labels incorporating electrical oscillating circuits, certain parts of the circuits are initially punched out of a center area of a metal web covered by an adhesive.

Thereafter the center area is covered by an insulating material web for handling stability in order to thereafter punch out the part of the circuit to be located at the outer web area. A covering foil is laminated onto the metal web and the parts of the circuits to be located at the reverse side are applied onto the insulating material web and connected electrically to the remainder of the circuit. This allows an economical and yet precise mass production of labels, for instance for a use in article safeguarding and controlling systems.

- (4) Patent Abstracts of Japan Publication No. 09-104189, entitled INFORMATION RECORDING MEDIUM, AND DEVICE FOR ITS PRODUCTION, By Teraura et al., published April 22, 1997. This document discloses as to a used ID tag, since the number of times written-in is one or more, an eliminating part is controlled so as to eliminate the information printed so far on a rewriting paper. Next, a transmitting and receiving part is controlled so as to write the ID information consisting of the written data and the number of times written-in stored in a memory in the ID tag. Further, a printing part is controlled so as to form printing data for printing the

same as or some part of the information written in the ID tag on the basis of the written data stored in the memory in order to print the printing data on the rewriting paper formed on the ID tag.

- (5) Japanese Laid-Open Publication No. 63-246292 dated October 13, 1988. This document discloses an IC card having a circuit module mounted within a card-shaped substrate, said card-shaped substrate is formed of synthetic resin, wherein said circuit module is constituted as being detachable from said card-shaped substrate.
- (6) Patent Abstracts of Japan Publication No. 02-062295, entitled INFORMATION MEDIUM, CONVEYING BODY THEREFOR AND READER THEREOF, By Uenishi et al., published March 2, 1990. This document discloses an IC chip which is mounted on one side of a lead frame and electrodes of the IC chip and lead elements of the lead frame are connected together by metal slender wires, while the other side of the lead frame is exposed. These members are covered with seal resin, and further supporting resin having a flange is provided on the outer peripheral part of said seal resin by an injection

molding method. The exposed side of the lead frame serves as a connection terminal. The thickness of this information medium is the same with that of a conventional magnetic strip card or IC card. A plurality of recessed or projecting parts are provided in the outer peripheral part of the seal resin, and they make the adhesion to the supporting resin stronger.

- (7) Patent Abstracts of Japan Publication No. 07-239922, entitled IC MODULE FOR IC CARD, By Masahiro Hayashi, published September 12, 1995. This document discloses the IC module which forms a pattern equivalent to a coil or an antenna comprising conductors to one side of a support base and a pattern equivalent to a terminal electrode. The coil or antenna transmits information between the IC card and an external device by the noncontact system. Furthermore, the terminal electrode transmits information between the IC card and the external device by the contact system and consists of a set of rectangular electrodes. Thus, the IC card capable of dealing with both of contact and noncontact systems can be obtained.

(8) Patent Abstracts of Japan Publication No. 07-325895, entitled RADIO MEDIUM PROCESSOR, By Takanobu Ishibashi, published December 12, 1995. This document discloses when each radio card is inserted in and set to plural card insertion slots, a reset switch detects the insertion and set and a memory for radio card is reset. Subsequently, a CPU reads each data stored in the memory of each radio card by performing each radio communication with each set radio card and stores each read data in the memory for radio card. Afterwards, the CPU performs communication by radio with a radio card reader/writer based on the data stored in the memory for radio card. After a communication processing is terminated, the radio card is taken out from the card insertion slot. At this time, the reset switch detects the take-out and the memory for radio card is reset.

(9) Patent Abstracts of Japan Publication No. 09-022449, entitled TRANSMISSION-RECEPTION SYSTEM, By Sadao Kokubu, published January 21, 1997. This document discloses a start switch which is turned on by an operator, a microcomputer of a holder reads a start signal code out of an IC card and transmits a start

signal via a transmitting device and an antenna coil. A microcomputer of the card receives the signal via an antenna coil and a receiving device and sends an ID code to a communication device as an answer signal. The device receives the signal via an antenna coil and a receiving device and collates the signal with an ID code that is previously set. When the signal is coincident with the ID code, the device sends a control signal to a processor. Thus the processor cancels a door lock state.

- (10) Patent Abstracts of Japan Publication No. 10-092673, entitled NON-CONTACT POWER TRANSMISSION DEVICE, By Takashi Urano, published October 4, 1998. This document discloses a power supply coil of a charging part which is divided into two sets. A power supply coil of each set is wound on each core to form two sets of separated and independent first power supply coil part and a second power supply coil part. A power receiving coil is wound on a core to form a set of power receiving coil part. The power receiving coil part is inserted in a space between the first power supply coil part and the second power supply coil part mounted on a charging part. The first power supply

coil part, the power receiving coil part and the second power supply coil part are arranged in line. Polarity of each winding is set and wound so that AC magnetic fluxes  $\phi_1$   $\phi_2$  always pass through from the first power supply coil part and the second power supply coil part to the power receiving coil part in the same direction.

- (11) Patent Abstracts of Japan Publication No. 04-178689, entitled INFORMATION PROVIDING DEVICE AND INFORMATION READER, By Yamada et al., published June 25, 1992. This document discloses when a user requests the providing of the information, the storage device such as an IC card, is inserted into the prescribed place of the information writing device, and then, requested information is selected by an information selecting means. A CPU reads charge information stored in the first storage device of the storage, by a storage device rewriting means, and checks whether the charge of the selected information is paid or not. When the enough charge exists, the charge of the selected information is deducted from the charge information, and the charge information after the deduction is written in the storage device. After that, the



selected information is read from the information storage means, and written in a second storage device by an information writing means.

- (12) Patent Abstracts of Japan Publication No. 06-119552, entitled INFORMATION PROVIDING SYSTEM, By Mifuyu Sonohara, published April 28, 1994. This document discloses information which can be recorded in a recorded medium in an information recording device loadable/ejectable to/from an information reproducing device. In the loaded state of the recording device in the reproducing device, the information in the medium can be reproduced by the reproducing device. On the other hand, management information can be recorded in the recording device and the management information is updated in accordance with the using state of information. When recorded contents reach a prescribed volume of information to be used, the succeeding information reproducing is inhibited to protect copyright. The recording device can be loaded/ejected to/from an information providing device, and in the loaded state of the recording device to the providing device, required information is recorded in the recording medium of the recording device.

Simultaneously management information is updated and information corresponding to the amount of payment can be used.

- (13) Patent Abstracts of Japan Publication No. 06-012571, entitled AUTOMATIC INFORMATION VENDING MACHINE, By Suzuki et al., published January 21, 1994. This document discloses when approach of the human body is detected by a sensor, a demonstration image of a commercial and sales information is reflected on a display by a hard disk or a VTR. In such a state, when an operating panel is operated, a genre menu of the sales information and the next operating instruction are displayed. When a desired genre is selected in accordance with this message, a saleable information menu in the genre and its price are displayed, and also, the next operation menu is outputted. When desired information data is selected in accordance therewith, the method for payment is messaged together with an outline of the information data and its price, and its information capacity. Subsequently, a charge processing is executed by a prepaid card reader/writer, a coin mechanism, etc.

(14) Patent Abstracts of Japan Publication No. 09-244567, entitled GUIDING INFORMATION DEVICE, By Masayuki Oguri, published September 19, 1997. This document discloses information supplying means and which store the information related to guiding information objects, communicates with guiding information terminal means located at the place, where the guiding information objects exists, through communication means. Thus, users who utilize the means are individually specified and the information related to the guiding information objects is provided based on the requests from the means.

The following documents were cited in the corresponding Japanese patent application.

(15) Patent Abstracts of Japan Publication No. 04-145593, entitled PHYSICAL DISTRIBUTION MANAGEMENT SYSTEM, By Kawahara et al., published May 19, 1992. This document discloses data carriers which are respectively attached to plural physically distributed objects and a head unit, the communication sensitivity of which is adjusted to a distance shorter than the half of the outside dimension of the objects, reads or writes data

from or on the carriers in a non-contact state by utilizing electromagnetic coupling or electromagnetic induction. Then a central processing unit processes and manages the data. Accordingly, physical distribution can be surely managed without causing wrong reading or wrong posting of data which happens when a visual reading system is used and an unreadable state due to the contamination or peeling off of labels which happens when a bar code system is used. Therefore, highly reliable physical distribution management can be realized, since the possibility of wrongly reading the data of an adjacent object is low.

- (16) Japanese Laid-Open No. 1-59670 dated April 14, 1989.  
This document discloses an ID card for a visitor used independent of a visitor registration card having a bar-cord, wherein the ID card having a bar-cord same as that of the visitor registration card, and being constructed to be easily released from a dress.
- (17) Japanese Laid-Open No. 1-111363, dated July 27, 1989.  
This document discloses a card system for storing and changing information, comprising an IC card having a memory unit which is provided with a first region for

storing personal information for one person, a second region that personal information for plural people can be stored, and a third region for storing a memory cord, and a device for reading information from the memory unit of said IC card, for writing information in said memory portion, and for displaying information stored in said memory unit, said device comprising menus for selectively instructing one of reading, writing or displaying information to said memory unit of said IC card, means for inputting a memory cord, a buffer, and a display unit, and wherein said device reads personal information stored in said first region of the memory unit of said IC card and stores same in said buffer when said reading instruction is issued, and said device writes the personal information stored in said buffer into the second region of the memory unit of said IC card when said writing instruction is issued, and said device displays the information read from the second region of the memory unit of said IC card when said displaying instruction is issued and a code which is identical with the memory cord stored in the third region of the memory unit of said IC card from said input means.

(18) Patent Abstracts of Japan No. 01-190496, entitled ELECTRONIC NAME CARD AND PROCESSOR, By Kazumasa Sasaki, published July 31, 1989. This document discloses an electronic name card means a medium coated with a magnetic film, a hologram, a medium having optically delectable unevenness formed to the surface thereof, a medium having a semiconductor element mounted therein and storing necessary data, or a medium mechanically perforated or having a character or mark printed thereon so as to be capable of converting a hole, a character or a mark to an electric signal by an optical means and the content of any one of them can be read as an electric signal to be set to the input signal of a computer and said card has a shape of a card or a disc tape A card publishing apparatus has function for inputting data and transferring the same to a card medium. A card receiving apparatus has function for reading the content of the card to temporarily storing the same.

(19) Japanese Laid-Open No. 61-277495, dated December 8, 1986. This document discloses an electronic unit for name card, comprising a reception unit, a memory unit for storing data received by said reception unit, a

transmission unit for transmitting memory content in said memory unit to outside, a display unit for displaying the memory content or the data received by said reception unit, and a control unit for controlling operation, and wherein said reception unit, said memory unit, said transmission unit, said display unit and said control unit are all received within one card.

- (20) Japanese Laid-Open No. 61-180758, dated November 11, 1986. This document discloses an electronic card for name card, comprising a memory unit for storing data relating to a name card, a transmission connector for outputting said data, a reception connector for inputting said data, a display unit for displaying said data, a operation unit for manually designating data that is to be displayed on the display unit or to be transmitted to said transmission connector, and an operation unit for transmitting said data to said display unit or to said transmission connector read from said memory unit in response to the designation, and for writing said data in said memory unit received by said reception unit.

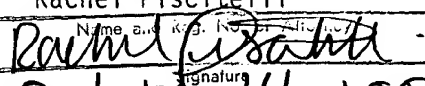
The undersigned submits the above-identified references for independent consideration by the Examiner and does not make any admission that these references are or are not material to the present invention or that these references are or are not prior art with respect to the present invention.

Respectfully submitted,

Jiro Nagaoka et al

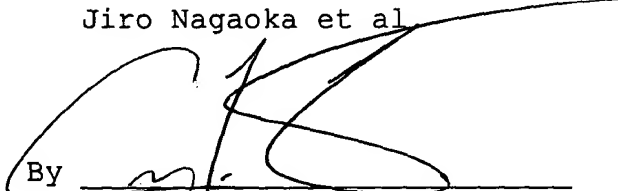
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on October 24, 2002

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